

CLAIMS

1. A method for storing data, the method comprising:
 - writing the data to a temporary storage location;
 - buffering a mirror request to copy the data from the temporary storage location to a mirror;
 - determining the validity of the data written to the temporary storage location; and
 - if the data written to the temporary storage location is valid, sending the mirror request for execution;
 - and
 - if the data written to the temporary storage location is invalid, deleting the mirror request.
2. The method of claim 1, wherein writing data to a temporary storage location comprises writing first and second portions of the data to respective first and second slots within the temporary storage location.
3. The method of claim 2, further comprising buffering a mirror request for each of the first and second portions.
4. The method of claim 3, further comprising sending all the buffered mirror requests for execution if the data is determined to be valid.
5. The method of claim 3, further comprising deleting all the buffered mirror requests if the data is determined to be invalid.
6. The method of claim 1, wherein buffering the mirror request comprises buffering the mirror request in a memory location separate from the temporary storage location.
7. A method for storing data, the method comprising:

writing a first portion of the data to a first temporary storage location;

buffering a first mirror request to copy the first portion from the first temporary storage location to a mirror;

writing a second portion of the data to a second temporary storage location;

buffering a second mirror request to copy the second portion from the second temporary storage location to the mirror;

determining the validity of the data;

if the data is valid, sending the first and second mirror requests for execution;

if the data is invalid, deleting the first and second mirror requests.

8. A method for storing data, the method comprising:

writing the data to a temporary storage location;

buffering a mirror request to copy the data from the temporary storage location to a mirror;

determining that the data written to the temporary storage location is invalid; and

deleting the mirror request.

9. A method for storing data, the method comprising:

writing a first portion of the data to a first temporary storage location;

buffering a first mirror request to copy the first portion from the first temporary storage location to a mirror;

writing a second portion of the data to a second temporary storage location;

buffering a second mirror request to copy the second portion from the second temporary storage location to the mirror;

determining that the data is invalid;

if the data is invalid, deleting the first and second mirror requests.

10. A data storage system for storing data provided by a host, the system comprising:

a host adaptor for communicating with the host;

a cache memory in communication with the host adaptor for temporary storage of data;

a mirror queue for queuing mirror requests for copying selected data from the cache memory to a mirror;

a holding pen for accumulating mirror requests prior to sending the mirror requests to the mirror queue.

11. The system of claim 10, wherein the host adaptor comprises a local memory and the holding pen is maintained in the local memory.
12. The system of claim 10, wherein the holding pen is maintained in the cache memory.
13. The system of claim 10, further comprising a remote adaptor configured to inspect the mirror queue and to copy selected

data from the cache memory to a mirror in response to mirror requests queued therein.

14. A computer-readable medium having encoded thereon software for causing storage of data, the software comprising instructions for:

writing the data to a temporary storage location;

buffering a mirror request to copy the data from the temporary storage location to a mirror;

determining the validity of the data written to the temporary storage location; and

if the data written to the temporary storage location is valid, sending the mirror request for execution; and

if the data written to the temporary storage location is invalid, deleting the mirror request.

15. The computer-readable medium of claim 14, wherein the instructions for writing data to a temporary storage location comprise instructions for writing first and second portions of the data to respective first and second slots within the temporary storage location.
16. The computer-readable medium of claim 15, wherein the software further comprise instructions for buffering a mirror request for each of the first and second portions.
17. The computer-readable medium of claim 16, wherein the software further comprises instructions for sending all the buffered mirror requests for execution if the data is determined to be valid.
18. The computer-readable medium of claim 16, wherein the software further comprises instructions for deleting all the

buffered mirror requests if the data is determined to be invalid.

19. The computer-readable medium of claim 14, wherein the instructions for buffering the mirror request comprise instructions for buffering the mirror request in a memory location separate from the temporary storage location.